



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|-----------------|-------------|----------------------|---------------------|------------------|
|-----------------|-------------|----------------------|---------------------|------------------|

09/894,138

06/29/2001

Martin Roth

420AS/49910

5748

7590

06/01/2004

Crowell & Moring, L.L.P.
Intellectual Property Group
PO Box 14300
Washington, DC 20044-4300

EXAMINER

DINH, TIEN QUANG

ART UNIT

PAPER NUMBER

3644

DATE MAILED: 06/01/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/894,138

Applicant(s)

ROTH ET AL.

Examiner

Tien Dinh

Art Unit

3644

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-3, 17, 18, 30, 31, 33-38, 43-49, 54-60, 66 and 67 is/are pending in the application.

4a) Of the above claim(s) ____ is/are withdrawn from consideration.

- 5) ☐ Claim(s) ____ is/are allowed.

- 6) ☒ Claim(s) 1-3, 17, 18, 30, 31, 33-38, 43-49, 54-60, 66 and 67 is/are rejected.

- 7) ☐ Claim(s) ____ is/are objected to.

- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.

- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

- a) ☐ All b) ☐ Some * c) ☐ None of:

1. ☐ Certified copies of the priority documents have been received.

2. ☐ Certified copies of the priority documents have been received in Application No. ____.

3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date ____.

- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: ____.

DETAILED ACTION

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1, 2, and 60 are rejected under 35 U.S.C. 102(b) as being anticipated by

Wittenstein et al or Dietrich et al.

Wittenstein et al or Dietrich et al discloses a linear operating device that as a nut that is fixed to the rotating drive unit so as to drive the spindle and rolling bodies.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 17 and 18 are rejected under 35 U.S.C. 103(a) as being unpatentable over

Wittenstein et al or Dietrich et al in view of Madey.

Wittenstein et al or Dietrich et al discloses all claimed parts of the invention except for the nut having a first lock device (a projection) and a complementary lock device to hold the

Art Unit: 3644

nut in place. However, Madey discloses a nut having a first lock device/projection and a complementary device 176, 174 to hold the nut in place are well known in the art.

It would have been obvious to one skilled in the art at the time the invention was made to have attached a locking device on a nut and a complementary lock device in Wittenstein et al or Dietrich et al 's system as taught by Madey to lock the nut in place to prevent accidental activation.

Claim 3, as best understood, is rejected under 35 U.S.C. 103(a) as being unpatentable over Wittenstein et al or Dietrich et al in view of Hansen.

Wittenstein et al or Dietrich et al discloses all claimed parts of the invention except for the nut being connected to a rotating drive unit that is a spring. However, Hansen discloses that a spring element which acts as a motor/rotating drive unit are well known in the art.

It would have been obvious to one skilled in the art at the time the invention was made to have used a spring element/rotating drive unit Wittenstein et al or Dietrich et al 's system as taught by Hansen to regulate the movement of the spindle.

Claims 30 and 31 are rejected under 35 U.S.C. 103(a) as being unpatentable over Wittenstein et al or Dietrich et al as modified by Madey as applied to claims 1 and 2 above, and further in view of Schonfield.

Wittenstein et al or Dietrich et al as modified by Madey discloses all claimed parts of the invention except for the mountings being tiltable. However, Schonfield discloses that mountings (see figure 4) that are tiltable are well known in the art.

Art Unit: 3644

It would have been obvious to one skilled in the art at the time the invention was made to have used tiltable mountings in Wittenstein et al or Dietrich et al 's system as modified by Madey and as taught by Schonfield to allow easier release of the solar panels.

Claims 37, 38, 43, 46-49, 54, 57, 58, 60, 62, 66, and 67 are rejected under 35 U.S.C. 103(a) as being unpatentable over Roth et al in view of Wittenstein et al or Dietrich et al.

Roth et al. discloses solar panel release device having a spindle 3 that is pre-tensioned (by a spring/elastic element, next to the part 13, see figure 1) in the axial direction of the spindle on an area of the spindle, which acts in conjunction with the nut, which has threads 33. Roth et al lacks having nuts that is "rotatably attached" to the spindle and having rollers and a motor that are fixedly connected to the nut. However, Wittenstein et al or Dietrich et al discloses a system having nuts with rollers that are rotatably attached to the spindle and motor means that are fixedly connected to the nut to move the spindle in one direction are well known in the art.

It would have been obvious to one skilled in the art at the time the invention was made to have used nuts with rollers and made the nuts fixed to the motor in Roth et al's system as taught by Wittenstein et al or Dietrich et al to allow the safe release of the solar panels.

Art Unit: 3644

Claims 44, 45, 55, and 56 are rejected under 35 U.S.C. 103(a) as being unpatentable over Roth et al as modified by Wittenstein et al or Dietrich et al as applied to claims 5, 1, 8, above, and further in view of Madey.

Roth et al as modified by Wittenstein et al or Dietrich et al discloses all claimed parts of the invention except for the first locks on the nut and a complementary lock device to hold the nut in place. However, Madey discloses a nut having a first lock device/projection and a complementary device 176, 174 to hold the nut in place are well known in the art.

It would have been obvious to one skilled in the art at the time the invention was made to have attached a locking device on a nut and a complementary lock device in Roth et al's system as modified by Wittenstein et al or Dietrich et al and as taught by Madey to lock the nut in place to prevent accidental activation.

Claim 59 is rejected under 35 U.S.C. 103(a) as being unpatentable over Roth et al as modified by Wittenstein et al or Dietrich et al as applied to claims 58, 57, 48 above, and further in view of Schonfield.

Roth et al as modified by Wittenstein et al or Dietrich et al discloses all claimed parts of the invention except for the mountings being tiltable. However, Schonfield discloses that mountings (see figure 4) that are tiltable are well known in the art.

It would have been obvious to one skilled in the art at the time the invention was made to have used tiltable mountings in Roth et al's system as modified by Wittenstein et al or Dietrich et al and as taught by Schonfield to allow greater freedom of movement to release of the solar panels.

Response to Arguments

The Examiner has used the Wittenstein et al and Dietrich et al reference to reject the newly amended claims.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Tien Dinh whose telephone number is 703-308-2798. The examiner can normally be reached on 9-6.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Charles Jordan can be reached on 703-306-4159. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

TD

Tien Dinh